

## REMARKS/ARGUMENTS

In the Office Action of April 17, 2008, claims 5-7 are objected to and claims 1-8 are rejected. In response, claims 3 and 5 have been amended to correct minor informalities. Additionally, claims 9-12 have been added. Support for claims 9-12 can be found at Applicant's specification, for example, in paragraphs [0019] and [0021]. Applicant hereby requests reconsideration of the application in view of the claim amendment and the below-provided remarks.

### Claim Objections

Claims 5-7 are objected to because of the following alleged informalities: the use of the terms “*third mixer*” and “*fourth mixer*.<sup>1</sup>” Claims 5-7 depend from and incorporate all of the limitations of the independent claim 4. Claim 4 discloses “*a first mixer (12) arranged to down-convert the radio frequency signal (10) to a first lower frequency signal (15) using the first mixing signal (11); and a second mixer (16) arranged to down-convert the first low frequency signal (15) to a second lower frequency signal (18) using the second mixing signal (13).*” Therefore, Applicant respectfully asserts that “*third mixer*” and “*fourth mixer*” in claims 5-7 are appropriate because the third mixer and fourth mixer are not the first mixer and second mixer recited in claim 4.

### Claim Rejections under 35 U.S.C. 102

Claims 1-2 and 8 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Durec (U.S. Pat. No. 6,144,846). Additionally, claim 3 is rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Black et al. (U.S. Pat. No. 6,678,503B1, hereinafter “Black”). In light of the following remarks, Applicant respectfully submits that pending claims 1-3 and 8 are patentable over Durec and Black.

### Independent Claim 1

The independent claim 1 recites in part “*a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands,*” which is not disclosed in the

cited reference of Durec. Thus, Applicant respectfully asserts that claim 1 is not anticipated by Durec.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

*Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The cited reference of Durec discloses a local oscillator (26), a counter (28), and mixer circuits (14A and 14B). The cited reference of Durec also discloses that a selection signal N<sub>SEL</sub> is applied to the counter (28). However, Durec does not disclose that “*a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands*,” as recited in claim 1. Therefore, Applicant respectfully asserts that claim 1 is not anticipated by Durec and in condition for allowance.

#### Dependent Claim 2

Claim 2 depends from and incorporates all of the limitations of the independent claim 1. Applicant respectfully asserts that claim 2 is allowable at least based on an allowable claim 1.

#### Independent Claim 3

The independent claim 3 recites in part “*a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands*,” which is not disclosed in the cited reference of Black. Thus, Applicant respectfully asserts that claim 3 is not anticipated by Durec.

The cited reference of Black disclose a frequency hopping local oscillator synthesizer (20), a divider (22), a first transmit mixer (12) and a second transmit mixer (14). However, Black does not disclose that “*a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands*,” as recited in claim 3. Therefore, Applicant respectfully asserts that claim 3 is not anticipated by Black and in condition for allowance.

### Independent Claim 8

The above remarks with regard to the rejection of claim 1 also apply to the rejection to claim 8. Accordingly, Applicant respectfully asserts that claim 8 is not anticipated by Durec and in the condition for allowance.

### Claim Rejections under 35 U.S.C. 103

Claims 4-7 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Durec in further view of Black. Claim 4 recites in part “*a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands.*” As stated above with respect to the rejections of claims 1 and 3, the cited references of Durec and Black do not disclose such a limitation. Therefore, Applicant respectfully submits that claim 4 is not obvious over Durec in view of Black.

Claim 5-7 depend from and incorporate all of the limitations of the independent claim 4. Thus, Applicant respectfully asserts that claims 5-7 are allowable at least based on an allowable claim 4.

### New Claims 9-12

Claim 9 and 10 depend from and incorporate all of the limitations of the independent claim 1. Applicant respectfully asserts that claims 9 and 10 are allowable at least based on an allowable claim 1. Claim 11 and 12 depend from and incorporate all of the limitations of the independent claim 8. Applicant respectfully asserts that claims 11 and 12 are allowable at least based on an allowable claim 8. Additionally, new claims 9-12 are allowable for further reasons, as described below.

Durec and Black do not disclose that “*the ratio between the center frequency and the first frequency is equal to (N+1)/N, wherein N is the division factor*” or “*the ratio between the center frequency and the first frequency is equal to (N-1)/N, wherein N is the division factor*”, as recited in claims 9 and 10. Accordingly, Applicant respectfully asserts that claims 9 and 10 are patentable over Durec and Black. Similarly, Applicant respectfully asserts that claims 11 and 12 are patentable over Durec and Black since claims 11 and 12 recite similar limitations as claims 9 and 10, respectively.

## **CONCLUSION**

Applicant respectfully requests reconsideration of the claims in view of the amendment and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,  
Vlemmings

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